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Technical Note

Prepared by:	Rachel Canham	Date:	21 September 2020
Project:	Poplar Farm, Austendyke Road, Spalding	Ref:	5034
For:	Holt Myers, Poplar Farm Tim Slater, 3D Planning	Page:	1 of 16
Subject:	Noise Investigation and Assessment		

1. Introduction

WBM has been retained by Holt Myers to carry out a noise investigation for industrial units at Poplar Farm. The site was granted retrospective permission in January 2020 subject to conditions.

Condition 3 states:

"No machinery shall be operated, no processes shall be carried out and no deliveries shall be taken at or dispatched from the site outside the hours of 8am and 6pm, nor at any time on Sundays, Bank or Public Holidays."

Reason: In the interests of the amenity of local residents. This Condition is imposed in accordance with Policies 2, 3 and 30 of the South East Lincolnshire Local Plan, 2019."

Condition 3 restricts the hours of use and the Client (site owner) wishes to revise this condition to extend or remove the restriction on operating hours.

Noise limits for operations at the site are set out in Condition 4, which states:

"Noise from fixed plant and machinery shall not exceed a level of 5 dB(A) above the background noise level when measured as a L(A)_{eq15min} at any residential boundary not within the applicant's ownership."

Reason: To ensure that there is no noise nuisance to nearby residents. This Condition is imposed in accordance with Policies 2, 3 and 30 of the South East Lincolnshire Local Plan, 2019."

The aims of the noise investigation are to establish the background levels at different times and assess the noise impact of activities at the industrial units on the adjacent dwellings.

2. Background Noise Levels

Condition 4 requires noise from the site not to be more than 5 dB above background levels at any residential boundary outside the Clients ownership. This is a reasonable noise limit.

It is understood that the residential properties at 1 and 2 Poplar Farm are owned by the Client.

The nearest residential properties outside the Clients ownership are Cedar Lodge to the west, The Beeches to the north-west and Austendyke Hall to the east – these are shown in Appendix A.

Background noise levels were measured at 3 locations:

Location 1 was at 2 Poplar Farm, as access was possible to set up a data logging sound level meter on site. Daytime sample measurements were also undertaken at this location.

Location 2 was near to The Beeches and Location 3 was at Austendyke Hall. Daytime sample measurements were obtained at these locations.

The survey details and results are presented in Appendices B and C.

2.1 Current Permitted Hours

From the installed sound level meter at Location 1, the results over the current permitted operating hours (8am to 6pm) show that background level range from 40-50 dB $L_{A90,15min}$ with an average value of 45 dB $L_{A90,15min}$.

The sample measurements at Locations 2 and 3 gave similar results:

Location 2: 41-48 dB $L_{A90,15min}$ (average 46 dB)

Location 3: 42-48 dB $L_{A90,15min}$ (average 45 dB)

The average daytime background noise level at all locations is around 45 dB $L_{A90,15min}$. This means that noise from the site should not exceed 50 dB $L_{Aeq,15min}$ at the residential boundaries during the current hours of operation.

During the baseline noise surveys, site activity was not audible at Locations 2 or 3. The noise levels were controlled by other sources including road traffic, rustling leave, birdsong and aircraft.

2.2 Extended Hours

Location 1 was in the rear garden of 2 Poplar Farm, where there was a fish pond and pump that operated continually. At night, the background levels at Location 1 fell to a minimum value of 39 dB $L_{A90,15min}$ but no lower, as they were affected by noise from this pump.

It is likely that background levels at Locations 2 and 3 at night would be lower than those measured at Location 1, as these locations are not affected by noise from a pond pump.

The following table sets out the average background noise levels measured in 2-hour periods before and after the permitted hours of operation. The table also include an estimate of the background level without noise from the pump, along with a suggested noise limit based on Condition 4. It is considered by WBM that the estimated background levels would be representative of the dwellings in the vicinity (Cedar Lodge, The Beeches and Austendyke Hall).

Time Period	Average Background dB L_{A90,15min}	Estimated Background without Pump	Suggested Noise Limit at Dwellings dB L_{Aeq,15min}
00:00-02:00	39	31	36
02:00-04:00	40	34	39
04:00-06:00	41	38	43
06:00-08:00	42	39	44
18:00-20:00	42	39	44
20:00-22:00	41	37	42
22:00-00:00	39	31	36

3. Site Noise Levels

Noise break-out from the industrial units was measured during the two site visits on 28 July and 04 August 2020. Although it is understood that all units are active, not all were operating at the times of the surveys as the activities at each unit are variable and seasonal.

Noise levels were measured at various locations around the site as shown in Appendix A. A summary of the results and findings is presented below.

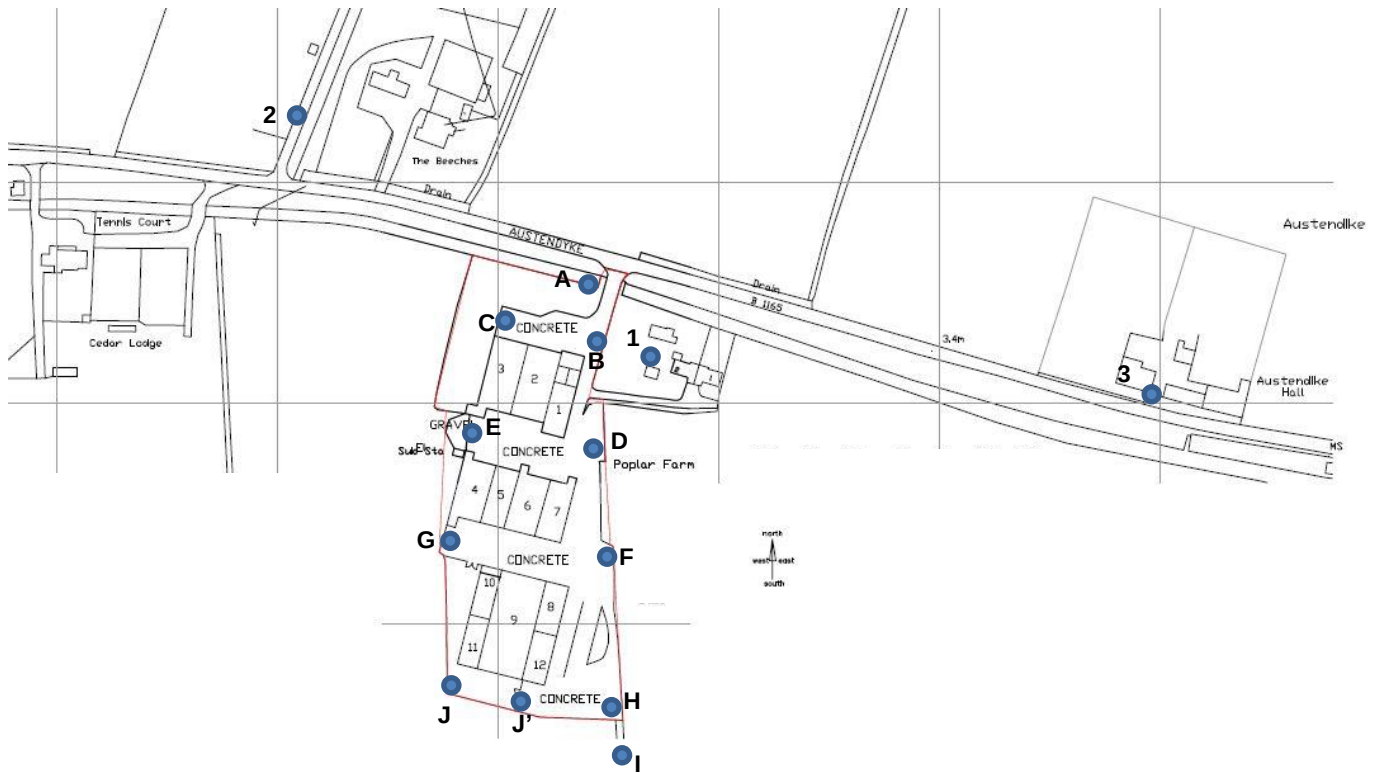
Summary of Noise Levels / Observations of Site Activity	
Description	Comment
A. North edge, by the entrance	Noise level around 62 dB $L_{Aeq,T}$ controlled by road traffic noise. Banging from car restoration unit (Unit 7) just audible.
B. East edge near to 2 Poplar Farm	Noise level around 55 dB $L_{Aeq,T}$ controlled by road traffic noise. Noise from Unit 7 just audible.
C. NW corner	No site activity audible during first survey (noise levels due to rustling leaves). Radio break-out from Unit 3 was just audible, estimated to be at or below 50 dB $L_{Aeq,T}$
D. East edge between 1 st & 2 nd row of units	Site activities just audible, estimated level at or below 50 dB $L_{Aeq,T}$
E. West edge between 1 st & 2 nd row of units	The first survey included activity at Units 2/3 with the rear doors open with a noise level of 60 dB $L_{Aeq,T}$ measured at around 20m from the units.
F. East edge between 2 nd & 3 rd row of units	Some site activity noise noted during both surveys, estimated level at or below 50 dB $L_{Aeq,T}$
G. West edge between 2 nd & 3 rd row of units	Some site activity noise noted during the first survey, at or below 45 dB $L_{Aeq,T}$
H. SE corner	Little or no site activity at this location, estimated site noise level of around 40 dB due to an extract fan at Unit 12.
I. 20m south of the site	Site activities inaudible at this location
J. SW corner / South edge	Extract fan from Unit 12, measured level of 50 dB $L_{Aeq,T}$ at approx. 15m from the fan.

Based on the above observed activity, the likely site noise should be at or below 40 dB at the adjacent residential properties (Cedar Lodge, Austendyke Hall and The Beeches). This meets the noise limits within permitted operating hours, and also outside permitted operating hours from 04:00 to 08:00 hours and 18:00 to 22:00 hours.

Rachel Canham
Partner

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Appendix A – Site Plan



● Noise survey location

Location	Description
1	Rear garden of 2 Poplar Farm
2	The Beeches, down track to side of property, approx. 16m from road
3	Austendyke Hall / Coach House, by gate approx. 4m from road
A	Northern edge of the site by the entrance
B	Eastern edge of the site adjacent to property at 2 Poplar Farm
C	North-west corner of the site
D	Eastern edge of the site between first and second row of units
E	Western edge of the site between first and second row of units
F	Eastern edge of the site between second and third row of units
G	Western edge of the site between second and third row of units
H	South-east corner of the site
I	20m beyond southern edge of the site
J and J'	South-west corner of the site (J), by shut gate (J')

Appendix B – Installed Sound Level Meter

Dates and Location of Survey

11:15 hours on 28 July 2020 to 09:15 on 30 July 2020 (meter stopped due a battery fault) and 10:15 to 13:00 hours on 4 August 2020.

The sound level meter was installed in the rear garden of 2 Poplar Farm – see Location 1 in Appendix A.

Equipment set up / collected by

Set up: Robert Storey Collected: Rachel Canham

Weather Conditions

Date	Comment
28 July 2020	Day: 17-19°C, dry, some cloud, moderate to high W breeze Evening: 13-16°C, dry, some cloud, moderate W breeze Overnight: 10-12°C, dry, some cloud, light to moderate W breeze
29 July 2020	Day: 14-21°C, dry, some cloud, light to moderate W breeze Evening: 15-20°C, dry, some cloud, light W breeze Overnight: 12-15°C, dry, some cloud, light NW to SW breeze
30 July 2020	Day: 15-18°C, dry, overcast, light SW breeze
4 August 2020	Day: 17-19°C, dry, some cloud, light SW breeze

Instrumentation and Calibration

The instrumentation used (including serial number in brackets) is tabulated below. The sensitivity of the meter was verified on site immediately before and after the survey using the field calibrator. The measured calibration levels were as follows:

Instrumentation	Start Cal	End Cal
Norsonic 116 Sound Level Meter (21628)	93.8 dB(A)	93.6 dB(A)
Brüel & Kjær 4230 Calibrator (1558653)		

The meter and calibrator are tested monthly against a Brüel and Kjær Pistonphone, type 4220 (serial number 375806) and a Norsonic Calibrator, type 1253 (serial number 22906) with UKAS approved laboratory certificate of calibration. In addition, the meter and calibrator undergo traceable calibration at an external laboratory every two years.

The sound level meter was installed in the rear garden of 2 Poplar Farm. The equipment was set up to continually record 15 minute samples. The microphone was at a height of 1.5m above local ground level with a windshield used throughout.

Appendix B (continued)

Survey Results						
Date	Time	Survey Results dB (T = 15 minutes)				
		L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}
28/07/2020	11:15	52	66	60	54	46
28/07/2020	11:30	52	65	60	55	47
28/07/2020	11:45	53	65	61	56	48
28/07/2020	12:00	53	62	58	55	49
28/07/2020	12:15	52	69	58	55	47
28/07/2020	12:30	53	72	60	56	48
28/07/2020	12:45	54	69	62	57	48
28/07/2020	13:00	51	68	59	54	46
28/07/2020	13:15	57	90	60	57	49
28/07/2020	13:30	55	84	60	56	49
28/07/2020	13:45	53	65	60	56	48
28/07/2020	14:00	52	61	58	55	48
28/07/2020	14:15	55	73	65	58	46
28/07/2020	14:30	53	68	61	56	46
28/07/2020	14:45	54	66	61	57	49
28/07/2020	15:00	52	64	59	55	47
28/07/2020	15:15	54	69	60	57	50
28/07/2020	15:30	52	62	59	55	47
28/07/2020	15:45	52	62	58	54	46
28/07/2020	16:00	52	62	58	56	46
28/07/2020	16:15	53	65	59	56	48
28/07/2020	16:30	53	64	59	56	48
28/07/2020	16:45	54	67	60	57	48
28/07/2020	17:00	57	88	61	57	50
28/07/2020	17:15	54	81	60	57	49
28/07/2020	17:30	53	67	60	56	48
28/07/2020	17:45	52	63	59	55	47
28/07/2020	18:00	51	64	59	54	43
28/07/2020	18:15	52	71	61	55	44
28/07/2020	18:30	51	68	60	54	46
28/07/2020	18:45	50	63	58	53	44
28/07/2020	19:00	48	63	56	51	44
28/07/2020	19:15	47	65	57	50	41
28/07/2020	19:30	48	61	57	51	43

Appendix B (continued)

Survey Results						
Date	Time	Survey Results dB (T = 15 minutes)				
		L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}
28/07/2020	19:45	54	84	63	56	44
28/07/2020	20:00	48	69	58	50	42
28/07/2020	20:15	46	63	56	49	41
28/07/2020	20:30	48	65	59	51	41
28/07/2020	20:45	46	64	56	50	40
28/07/2020	21:00	46	62	56	48	41
28/07/2020	21:15	46	61	56	49	40
28/07/2020	21:30	53	63	60	57	40
28/07/2020	21:45	51	62	58	55	43
28/07/2020	22:00	44	60	53	46	40
28/07/2020	22:15	46	68	58	44	40
28/07/2020	22:30	43	60	53	46	40
28/07/2020	22:45	42	57	50	42	40
28/07/2020	23:00	42	59	51	42	40
28/07/2020	23:15	42	57	51	42	40
28/07/2020	23:30	42	60	51	42	40
28/07/2020	23:45	40	45	42	41	39
29/07/2020	00:00	41	48	42	41	40
29/07/2020	00:15	42	59	52	41	40
29/07/2020	00:30	41	57	49	42	40
29/07/2020	00:45	41	57	49	42	40
29/07/2020	01:00	45	63	57	44	40
29/07/2020	01:15	41	51	47	42	40
29/07/2020	01:30	41	46	43	42	40
29/07/2020	01:45	42	47	44	43	41
29/07/2020	02:00	43	47	44	44	42
29/07/2020	02:15	42	46	43	43	41
29/07/2020	02:30	42	47	44	43	41
29/07/2020	02:45	43	61	51	43	42
29/07/2020	03:00	44	61	54	45	41
29/07/2020	03:15	41	45	43	42	41
29/07/2020	03:30	41	46	43	42	41
29/07/2020	03:45	42	56	49	43	41
29/07/2020	04:00	41	46	43	42	40

Appendix B (continued)

Survey Results						
Date	Time	Survey Results dB (T = 15 minutes)				
		L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}
29/07/2020	04:15	48	68	60	48	40
29/07/2020	04:30	44	62	56	45	40
29/07/2020	04:45	51	70	62	52	42
29/07/2020	05:00	51	67	63	54	41
29/07/2020	05:15	52	68	63	56	42
29/07/2020	05:30	50	71	62	53	43
29/07/2020	05:45	46	60	55	49	42
29/07/2020	06:00	50	67	58	54	42
29/07/2020	06:15	50	64	59	53	43
29/07/2020	06:30	51	68	61	55	43
29/07/2020	06:45	51	66	61	54	43
29/07/2020	07:00	50	68	61	54	42
29/07/2020	07:15	51	73	60	55	43
29/07/2020	07:30	50	63	58	54	43
29/07/2020	07:45	52	66	62	55	44
29/07/2020	08:00	50	64	59	53	43
29/07/2020	08:15	48	61	57	52	43
29/07/2020	08:30	49	62	58	53	43
29/07/2020	08:45	53	73	63	55	44
29/07/2020	09:00	50	82	58	51	44
29/07/2020	09:15	55	75	67	58	46
29/07/2020	09:30	54	65	62	58	45
29/07/2020	09:45	49	65	57	52	42
29/07/2020	10:00	56	71	67	60	43
29/07/2020	10:15	56	76	69	56	45
29/07/2020	10:30	54	75	67	55	45
29/07/2020	10:45	52	75	62	54	44
29/07/2020	11:00	51	67	60	54	46
29/07/2020	11:15	51	67	60	53	46
29/07/2020	11:30	50	73	58	52	43
29/07/2020	11:45	51	85	56	52	44
29/07/2020	12:00	51	69	59	53	45
29/07/2020	12:15	50	62	59	53	45
29/07/2020	12:30	51	64	59	54	45

Appendix B (continued)

Survey Results						
Date	Time	Survey Results dB (T = 15 minutes)				
		L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}
29/07/2020	12:45	49	64	57	52	44
29/07/2020	13:00	51	72	60	54	44
29/07/2020	13:15	54	76	65	55	44
29/07/2020	13:30	55	78	65	59	46
29/07/2020	13:45	50	63	60	52	42
29/07/2020	14:00	49	68	59	52	43
29/07/2020	14:15	50	63	58	53	43
29/07/2020	14:30	49	70	58	52	44
29/07/2020	14:45	49	63	57	52	43
29/07/2020	15:00	72	89	85	74	44
29/07/2020	15:15	59	80	72	62	45
29/07/2020	15:30	52	62	59	54	46
29/07/2020	15:45	51	70	62	54	43
29/07/2020	16:00	49	69	58	51	42
29/07/2020	16:15	51	63	60	55	44
29/07/2020	16:30	54	67	63	59	44
29/07/2020	16:45	51	67	60	56	44
29/07/2020	17:00	52	67	61	56	45
29/07/2020	17:15	52	86	57	51	42
29/07/2020	17:30	50	65	59	54	41
29/07/2020	17:45	50	66	59	54	42
29/07/2020	18:00	49	61	58	53	42
29/07/2020	18:15	49	61	58	52	41
29/07/2020	18:30	48	66	58	51	41
29/07/2020	18:45	47	64	57	50	41
29/07/2020	19:00	48	70	58	51	40
29/07/2020	19:15	44	58	54	47	39
29/07/2020	19:30	45	62	56	49	39
29/07/2020	19:45	51	66	60	56	39
29/07/2020	20:00	45	61	55	49	39
29/07/2020	20:15	44	60	55	45	39
29/07/2020	20:30	46	65	58	49	39
29/07/2020	20:45	45	64	56	48	39
29/07/2020	21:00	50	61	57	54	40

Appendix B (continued)

Survey Results						
Date	Time	Survey Results dB (T = 15 minutes)				
		L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}
29/07/2020	21:15	52	64	58	55	46
29/07/2020	21:30	51	63	58	54	44
29/07/2020	21:45	44	61	54	46	39
29/07/2020	22:00	42	58	51	42	39
29/07/2020	22:15	41	56	48	41	39
29/07/2020	22:30	43	59	52	44	39
29/07/2020	22:45	42	57	51	42	39
29/07/2020	23:00	41	59	50	42	39
29/07/2020	23:15	44	61	56	44	39
29/07/2020	23:30	40	54	48	41	39
29/07/2020	23:45	40	54	45	41	39
30/07/2020	00:00	42	61	52	42	39
30/07/2020	00:15	40	46	42	41	39
30/07/2020	00:30	40	59	48	41	39
30/07/2020	00:45	40	57	48	41	39
30/07/2020	01:00	43	61	55	41	39
30/07/2020	01:15	40	45	42	41	39
30/07/2020	01:30	40	47	42	41	39
30/07/2020	01:45	40	58	47	41	39
30/07/2020	02:00	39	46	42	40	39
30/07/2020	02:15	40	44	42	40	39
30/07/2020	02:30	41	58	47	41	39
30/07/2020	02:45	41	59	49	41	39
30/07/2020	03:00	40	46	42	41	39
30/07/2020	03:15	40	47	42	40	39
30/07/2020	03:30	40	54	43	41	39
30/07/2020	03:45	40	45	42	41	39
30/07/2020	04:00	42	61	53	41	39
30/07/2020	04:15	42	59	52	41	39
30/07/2020	04:30	50	71	62	53	39
30/07/2020	04:45	51	71	61	54	41
30/07/2020	05:00	50	64	57	53	44
30/07/2020	05:15	50	63	58	53	43
30/07/2020	05:30	49	63	58	53	42

Appendix B (continued)

Survey Results						
Date	Time	Survey Results dB (T = 15 minutes)				
		L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}
30/07/2020	05:45	48	63	58	51	40
30/07/2020	06:00	49	67	59	52	40
30/07/2020	06:15	49	66	60	53	40
30/07/2020	06:30	49	66	58	53	41
30/07/2020	06:45	47	62	58	51	40
30/07/2020	07:00	51	65	60	55	40
30/07/2020	07:15	54	71	67	56	41
30/07/2020	07:30	56	72	70	57	42
30/07/2020	07:45	48	69	57	52	41
30/07/2020	08:00	50	67	60	53	41
30/07/2020	08:15	50	65	60	54	41
30/07/2020	08:30	52	74	63	55	42
30/07/2020	08:45	49	68	60	53	41
30/07/2020	09:00	50	71	60	54	40
04/08/2020	10:15	49	65	58	52	41
04/08/2020	10:30	50	67	59	53	43
04/08/2020	10:45	54	74	65	57	42
04/08/2020	11:00	54	72	64	58	44
04/08/2020	11:15	52	76	61	53	43
04/08/2020	11:30	50	64	59	53	43
04/08/2020	11:45	53	68	62	55	46
04/08/2020	12:00	52	72	62	54	44
04/08/2020	12:15	51	68	60	54	45
04/08/2020	12:30	53	82	61	55	46
04/08/2020	12:45	54	84	61	55	47
04/08/2020	13:00	52	64	61	55	46

Appendix C – Sample Noise Surveys

Date and Locations of Survey

Poplar Farm, Austendyke Road near Spalding, with baseline noise measurements at Locations 1, 2 and 3 and site activity noise levels at Locations A to J (see Appendix A).

Tuesday 28 July 2020, 11:15 to 13:40 hours (Robert Storey)

Tuesday 04 August 2020, 09:50 to 13:10 hours (Rachel Canham)

Weather Conditions

See the weather details provided in Appendix B.

Instrumentation and Calibration

The instrumentation used (including serial number in brackets) is tabulated below. The sensitivity of the meter was verified on site immediately before and after the survey using the associated field calibrator. The measured calibration levels were as follows:

Instrumentation	28 July 2020		04 August 2020	
	Start Cal	End Cal	Start Cal	End Cal
Norsonic 140 Sound Level Meter (1404819)	113.6 dB(A)	113.5 dB(A)	113.8 dB(A)	113.8 dB(A)
Norsonic 1251 Calibrator (33321)				

The meter and calibrator are tested monthly against a Bruel and Kjaer Pistonphone, type 4220 (serial number 375806) and a Norsonic Calibrator, type 1253 (serial number 22906) with UKAS approved laboratory certificate of calibration. In addition, the meter and calibrator undergo traceable calibration at an external laboratory every two years.

Survey Details

Attended sample measurements were taken at the baseline locations 1, 2 and 3 and site activity locations A-J. The microphone was at a height of 1.5m above local ground level, with a windshield used throughout.

Measurements at the baseline locations were of 15 minutes duration. Measurements of site activity were 5 minutes location.

Observations of the noise environment were made during the measurements and are noted in the survey results.

Appendix C (continued)

Results and Observations – Baseline Noise Locations

Location	Date	Time	Results dB (T = 15 minutes)					Observations / Comments
			L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}	
1 2 Poplar Farm	28/7/20	11:16	50	65	59	53	44	Road traffic (distant and local), breeze in trees, voices at Poplar Farm, car doors, pond pump / water noise audible (42/43 dB), light aircraft, vehicle entering farm, hammering on metal at site ~48 dB when impacting
	28/7/20	12:16	50	66	58	53	45	Distant and local road traffic, breeze in trees at site entrance, pond pump / water noise audible (42/43 dB), clanks of planks of wood at farm, low pulsing just audible (possibly motor or engine)
	04/08/20	10:04	46	67	54	50	39	Rustling leaves, bird song/ calls, intermitted road traffic, noise from pond / tank (water filter / pump)
2 The Beeches	28/7/20	11:39	67	88	80	67	48	Breeze in trees, aircraft, occasional passing traffic (including 3 tractors plus some HGVs). Site inaudible.
	04/08/20	10:25	56	74	67	59	41	Occasional / intermitted local traffic, rustling leaves, cows in nearby field. Site inaudible
	04/08/20	12:29	59	75	70	62	48	Rustling leaves, vehicles on the road, distant aircraft. Site inaudible.
3 Austendyke Hall	28/7/20	11:57	63	84	76	63	63	Breeze in trees, occasional traffic on lane including HGVs, distant road traffic, metallic hammering at hall, distant tractor in fields, distant bird scarer, pigeon cooing. Site inaudible.
	04/08/20	10:48	69	94	81	70	69	Rustling leaves, birdsong, intermittent vehicles on local road. Site inaudible.
	04/08/20	12:47	66	87	79	67	66	Rustling leaves, intermittent vehicles on local road, distant aircraft. Site inaudible.

Appendix C (continued)

Results and Observations – Site Noise Levels

Location	Date	Time	Results dB (T = 5 minutes)					Observations / Comments
			L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}	
A	28/7/20	12:34	62	76	74	65	48	Breeze in trees, traffic, no site noise
	04/08/20	11:13	62	79	74	66	41	Road traffic, birdsong/calls, rustling leaves. Vehicles in/out of site, banging from car restoration Unit 7.
B	28/7/20	12:39	54	62	61	57	47	Breeze in trees, traffic, possible impact noises from site
	04/08/20	11:20	56	74	67	59	42	Intermittent vehicles on road, rustling leaves, birdsong/calls. Activity from Unit 7, car arrived at site
C	28/7/20	12:44	60	73	70	62	53	Breeze in trees, traffic, no site noise, low light aircraft
	04/08/20	11:26	53	73	61	56	47	Rustling leaves, occasional vehicle on road, bird song/calls, rustling leaves. Vehicle enters site, low level radio just audible from adjacent unit
D	28/7/20	12:50	50	61	56	53	45	Breeze in trees, traffic, aircraft, faint hammering and power tool, activity in open unit just audible (see E)
	04/08/20	11:40	49	69	56	51	44	Rustling leaves, distant traffic. Distant radio
E	28/7/20	12:56	60	66	63	62	59	Doors open rear of Unit 2/3 (constant plant noise and radio dominant), breeze in trees, low light aircraft
	04/08/20	11:34	51	73	61	52	47	Rustling leaves. Very little site activity – voices from end unit
F	28/7/20	13:02	46	65	55	48	41	Breeze in trees, traffic, voices and activity at Unit 7, dog walker on phone
	04/08/20	11:46	52	78	64	50	41	Rustling leaves, birdsong. Site vehicle, voices from end unit
G	28/7/20	13:09	45	62	50	47	40	Breeze in trees, traffic, motor noise inside closed unit, air tool and voices at Unit 7
	04/08/20	11:53	43	60	49	45	39	Rustling leaves, distant traffic – no site noise
H	28/7/20	13:15	47	62	55	50	41	Breeze in trees, traffic, aircraft, distant bird scarers, no site noise
	04/08/20	12:00	48	61	59	52	38	Distant road traffic, distant aircraft. Extract from unit 12, vehicles on site

Appendix C (continued)

Results and Observations – Site Noise Levels (continued)

Location	Date	Time	Results dB (T = 55 minutes)					Observations / Comments
			L _{Aeq,T}	L _{Amax,f}	L _{A01,T}	L _{A10,T}	L _{A90,T}	
I	28/7/20	13:21	55	67	62	59	45	Breeze in trees/foilage, distant traffic, light aircraft, no site noise
	04/08/20	12:07	41	61	50	43	36	Distant traffic, rustling leaves, wind noise – no site noise
J	28/7/20	13:28	56	71	64	60	49	Breeze in trees/foilage, distant traffic, jet aircraft, no site noise
J'	04/08/20	12:13	50	69	53	50	49	Gates closed so could not get access to J, measured adjacent to gates by Unit 12. Distant aircraft. Extract fan from Unit 12